

REMARKS

Claims 1–16 are pending in the present application.

Claims ____ were amended herein.

Reconsideration of the claims is respectfully requested.

37 C.F.R. § 1.83(a) (Drawings)

The drawings were objected to under 37 C.F.R. § 1.83(a) as failing to depict features recited in the claims. This objection is respectfully traversed.

The Office Action asserts that the drawings fail to depict the radio frequency (RF) modem shelf, individual RF modems, and the modulation controller.

RF modem shelf 140 is depicted in FIGURES 1 and 4 and described at page 32, line 10 through page 34, line 10 and page 44, line 22 through page . and RF modem shelves 140A-140D are depicted in FIGURES 1 and 2 page 35, line 15 through page 36, line 22 of the specification.

FIGURE 4 has been revised to include a plurality of individual modems and the modulation controller.

Therefore, the objection to the drawings under 37 C.F.R. § 1.83(a) has been overcome.

35 U.S.C. § 112, Second Paragraph (Definiteness)

Claims 4–5 and 12–15 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. This rejection is respectfully traversed.

Claims 4 and 12 each recite a second modulation format that is more complex than a first modulation format. The Office Action objects to recitation of “more complex” within the claims, asserting that the phrase is relative and the specification fails to provide a standard for ascertaining the requisite degree required to satisfy the limitation. However, the specification describes low complexity modulation formats, such as binary phase shift keying (BPSK or 2-BPSK), or perhaps quadrature phase shift keying (QPSK or 4-BPSK), and higher complexity modulation formats, such as 8-PSK, 16 state quadrature amplitude modulation (QAM), 32 QAM, 64 QAM, 128 QAM, etc. Specification, page 39, lines 19–21, page 65, lines 19–22. Accordingly, the specification provides a teaching, by example, of differentiating relative modulation complexity.

Therefore, the rejection of claims 4–5 and 12–15 under 35 U.S.C. § 112, second paragraph has been overcome.

35 U.S.C. § 103 (Obviousness)

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,704,579 to *Woodhead et al* in view of U.S. Patent No. 6,167,031 to *Olofsson*. Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Woodhead et al* in view of *Olofsson* and further in view of U.S. Patent No. 6,208,663 to *Schramm*. These rejections are respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142, p. 2100-128 (8th ed. rev. 2 May

2004). Absent such a *prima facie* case, the applicant is under no obligation to produce evidence of nonobviousness. *Id.*

To establish a *prima facie* case of obviousness, three basic criteria must be met: First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *Id.*

Independent claims 1 and 9 each recite a single RF modem transmitting downlink data to a first wireless device in one modulation format and to a second wireless device in a different modulation format. Such a feature is not found in the cited references. *Olofsson*, cited in the Office Action as teaching this feature, actually teaches measuring characteristics of a plurality of RF links and, based on those measurements, selecting a single modulation and coding scheme from among a plurality of such schemes for use for ALL of the RF links. *Olofsson* does not suggest individualizing the modulation scheme for each different RF link.

Therefore, the rejection of claims 1 and 6 under 35 U.S.C. § 103 has been overcome.

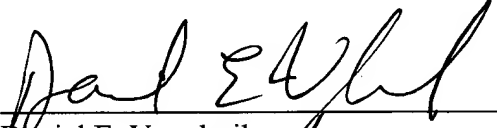
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *dvenglarik@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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Date: 12-22-04


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